Claims

1. Spur-toothed wheel for a worm gear having a first wheel disk (12) which carries teeth on a face that is cylindrical or designed in the shape of a truncated cone, characterized in that it has at least one second wheel disk (13, 14) which touches the first wheel disk (12) at a boundary surface (15) and which carries teeth on a face designed in the shape of a truncated cone, that the teeth of the two wheel disks continuously mesh into each other at the boundary surface (15), and that at least one of the two faces converges toward the boundary surface (15).

2. Spur-toothed wheel according to Claim 1, characterized in that the first wheel disk (12) is cylindrical.

3. Spur-toothed wheel according to Claim 1, characterized in that it has two second wheel disks (13, 14) on both sides of the first wheel disk (12).

4. Spur-toothed wheel according to Claim 1, characterized in that it is designed as a single piece.

5. Spur-toothed wheel according to Claim 1, characterized in that it is produced using an injection moulding procedure.

6. Form for producing a toothed wheel according to Claim 1, characterized in that it includes a tooth system insert (20) for the simultaneous shaping of the teeth of all wheel disks (12, 13, 14).

7. Form according to Claim 6, characterized in that the tooth system insert comprises multiple axial sections (21, 22, 26), each of which is complementary to a wheel disk.

8. Form according to Claim 6, characterized in that the tooth system insert extends as a single piece across the entire axial width of the teeth of all wheel disks.

9. Form according to Claim 8, characterized in that each tooth notch (24) of the tooth system insert (20, 20') is produced using a number of processing steps corresponding to the number of wheel disks (12, 13, 14) using an abrading tool (23), whereby the tooth system insert (20, 20') is tilted downward relative to the tool (23) between two processing steps.

10. Form according to Claim 6 for producing a toothed wheel according to Claim 2, characterized in that the tooth system insert (20) is designed as a single piece in the circumferential direction for removing the spur-toothed wheel from the mould in the axial direction.

11. Form according to Claim 6, characterized in that the tooth system insert (20') is divided into multiple segments (27) in the circumferential direction for removal from the mould in the radial direction.

Consideration and allowance of the present application is most respectfully requested.

Respectfully submitted,

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